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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,769	12/31/2001	Gene Gould	P 016417 272123	9179
27500	7590	12/29/2005	EXAMINER LEE, HWA S	
PILLSBURY WINTHROP SHAW PITTMAN LLP ATTENTION: DOCKETING DEPARTMENT P.O BOX 10500 McLean, VA 22102			ART UNIT 2877	PAPER NUMBER

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/039,769	GOULD ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Andrew Hwa S. Lee	2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 11 October 2005.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-22 and 28-69 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-22 and 28-69 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                     | Paper No(s)/Mail Date. _____ .  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____ .                                  |

## **DETAILED ACTION**

### ***Remarks***

This Office Action is in response to Applicant's Arguments of 10/11/05. No claims were amended or cancelled.

### ***Double Patenting***

1. Claim 28 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 5 and 6 of U.S. Patent No. 6,654,119 in view of U.S. Patent No. 4,973,159 to Sohma et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because the pending claim 28 has all the limitations of claims 5 and 6 but further define the elements of a double monochromator which Sohma et al show. The elements of Sohma's apparatus is discussed below.

2. Claims 56 and 59 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 7 respectively of U.S. Patent No. 6,654,119, the difference is merely that the apparatus claims are recited in a method format.

3. Claims 31-33 and 50 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 20-22 of copending Application No. 10/658,363. Although the conflicting claims are not identical, they are not patentably distinct from each other because the mirrors are renamed as "input" and "output" mirror rather than "excitation" and "emission" mirrors.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claims 34-36 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 20-22 of copending Application No. 10/658,363 in view of Wildnauer et al (US 5,233,405). Wildnauer shows a double pass scanning monochromator comprising a polarization rotation device that rotates the polarization components of the light beam by 90 degrees between the first and second passes so that the output of the monochromator is independent of the polarization of the input light beam. At the time of the invention, one of ordinary skill in the art would have used an optical filter (polarization rotation device) to restrict the output light to a selected polarized plane so that the output of the monochromator is independent of the polarization of the input light beam and therefore would have inherently used an output filter holder to hold the polarization rotation device.

This is a provisional obviousness-type double patenting rejection.

5. Claims 1-19 and 37-49 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7 of U.S. Patent No. 6,654,119, the difference is in the structure of the light source. Claims 20-22 and 47 is rejected as applied to claims 1 and 37 above in view of Wildnauer as discussed above.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 28 is rejected under 35 U.S.C. 102(b) as being anticipated by Sohma et al (US 4,973,159).

Sohma et al (“Sohma” hereinafter) show a spectroscope comprising:

an entrance aperture (Figure 1, 15) for accepting input light;

a first optical grating (11a) positioned to disperse at least part of the light accepted through the entrance aperture;

a first selection aperture (3) positioned to intercept part of the light dispersed by the first optical grating and operative to pass a selected range of wavelengths of the dispersed light;

a second optical grating (11b) positioned to disperse at least part of the light passed through the first selection aperture; and

a second selection aperture (19) positioned to intercept part of the light dispersed by the second optical grating and operative to pass a selected range of wavelengths of the dispersed light as output light

wherein each of the first optical grating and the second optical grating is operative to pivot about a respective axis of rotation allowing selection of a range of wavelengths of light to be passed through the first selection aperture and the second selection aperture, respectively, as a function of rotation angle (Figure 2);

the double monochromator further comprising means for pivoting (Figure 2) the first optical grating about its respective axis of rotation and pivoting the second optical grating about its respective axis of rotation synchronously and wherein the means for pivoting comprises a band drive mechanism (42) operatively coupled to each of the first optical grating and the second optical grating.

7. Claims 31-32 are rejected under 35 U.S.C. 102(b) as being anticipated by White (US RE 32,598)

White shows a feature extraction system comprising:

an excitation mirror positioned substantially coaxial with an area to be illuminated and operative to direct incoming light to illuminate the area such that the illuminated area emits fluorescent or luminescent light; and

an emission mirror positioned substantially coaxial with an area to be illuminated; wherein the emission mirror is operative to focus and to direct light emitted by the illuminated area as emission light.

8. Claims 56-65 are rejected under 35 U.S.C. 102(b) as being anticipated by White (US 3,825,762).

White shows an apparatus for measuring luminescent radiation comprising:

providing excitation light from a light source;  
directing the excitation light through a first double monochromator;  
transmitting the excitation light to the sample through a light transfer module;

employing the light transfer module to obtain light emitted by the sample;  
directing the light emitted by the sample to a second double monochromator; and  
analyzing light output by the second double monochromator.

Although in White may not show the same light transfer module of the present invention, the claim as presently standing does not recite any detail of the light transfer module and thus any of the directing mirrors of White would meet the limitations of the light transfer module as presently claimed.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sohma as applied to claim 28 above and further in view of Wildnauer et al (US 5,233,405).

Sohma shows all the elements as claimed as shown above but does not show the optical filter and an optical filter holder.

Wildnauer shows a double pass scanning monochromator comprising a polarization rotation device that rotates the polarization components of the light beam by 90 degrees between the first and second passes so that the output of the monochromator is independent of the polarization of the input light beam. At the time of the invention, one of ordinary skill in the art would have used an optical filter (polarization rotation device) to restrict the output light to a

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selected polarized plane so that the output of the monochromator is independent of the polarization of the input light beam and therefore would have inherently used an output filter holder to hold the polarization rotation device.

10. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over White as applied to claim 31 above, and further in view of Nevyas et al (US 4,355,871).

White discloses essentially every claimed feature except the input and output mirrors being first-surface mirrors above. See the discussion of White in the rejection of claim 31 above. In lines 20-38 of column 6, Nevyas et al disclose the advantages/desirability of using of first surface mirrors over using second-surface mirrors. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to use first-surface mirrors as the input and output mirrors in the system of White because of the advantages thereof set forth in lines 20-38 of column 6 of Nevyas et al.

11. Claim 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over White as applied to claim 31 above, and further in view of Wildnauer et al (US 5,233,405). Wildnauer shows a double pass scanning monochromator comprising a polarization rotation device that rotates the polarization components of the light beam by 90 degrees between the first and second passes so that the output of the monochromator is independent of the polarization of the input light beam. At the time of the invention, one of ordinary skill in the art would have used an optical filter (polarization rotation device) to restrict the output light to a selected polarized plane so that the output of the monochromator is independent of the polarization of the input light

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beam and therefore would have inherently used an output filter holder to hold the polarization rotation device.

***Response to Arguments***

**Terminal Disclaimer**

It is noted that Applicant intends to file terminal disclaimer after a Notice of Allowance, however, a Notice of Allowability cannot not be issued until the Applicant has overcome the double patenting rejection by filing a terminal disclaimer.

**Rejection of 35 U.S.C. 102(b)**

**Sohma:**

Applicant argues that Sohma reference does not show that a second optical grating positioned to disperse at least part of the light. The Examiner respectfully disagrees. A diffraction grating diffracts incoming light. If the incoming light is already a dispersed light, the grating combines the incoming dispersed light by dispersing the incoming dispersed light. It is this dispersing of light that is already dispersed which reverses the dispersion and creates a combined light. Furthermore, a recitation of the intended use of the second grating must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Applicant argues that Sohma does not pass selected wavelengths of monochromatic light. However, Sohma passes a spectrum and the spectrum meets the limitation of “selected

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wavelengths.” In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., “of monochromatic light”) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

White-RE

Applicant argues that mirror 32 is not positioned substantially coaxial with the area to be illuminated nor is operative to focus and direct light emitted by the illuminated area as emission light. Examiner respectfully disagrees. The claim does not clearly define the term “substantially” nor does the claim define which direction the axis of the illuminated area is. White-RE shows mirror 32 to be coaxial to the emission beam thus meeting the claim limitation of “substantially coaxial” and the spherical shape of mirror 32 focuses the emission beam which can also be observed in the figures, thus meeting the claimed “to focus and to direct”. Similarly, mirror 37 would meet the limitation for the excitation mirror.

White 3,825,762

It is not clear why the Applicant is arguing against the White-RE reference when the rejection was made with White 3,825,762. Both the rejection and the References Cited form cite White 3,825,762. Also, it appears the Applicant was aware of the rejection was under White 3,825,762 since Applicant states “the Examiner asserts that White-762...” and even titled the argument section “White 3,825,762”. The Examiner agrees that White-RE does not show all the

limitations of claims 56-65, however the rejection was made in view of White 3,825,762, not White-RE. The Examiner asserts that White 3,825,762 shows all the limitation of claims 56-65.

35 U.S.C. 103(a)

In response to Applicant's argument that Sohma does not show that a second optical grating positioned to disperse at least part of the light. The Examiner respectfully disagrees. A diffraction grating diffracts incoming light. If the incoming light is already a dispersed light, the grating combines the incoming dispersed light by dispersing the incoming dispersed light. It is this dispersing of light that is already dispersed which reverses the dispersion and creates a combined light. Furthermore, a recitation of the intended use of the second grating must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Applicant argues that Sohma does not pass selected wavelengths of monochromatic light. However, Sohma passes a spectrum and the spectrum meets the limitation of "selected wavelengths." In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "of monochromatic light") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that there would be no motivation to combine Sohma with Wildnauer. As stated above, one of ordinary skill in the art would have done so in order to restrict the output

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light to a selected polarized plane so that the output of the monochromator is independent of the polarization of the input light beam as taught in the abstract of Wildnauer.

In response to applicant's arguments against the Nevyas, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

***Conclusion***

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Hwa S. Lee whose telephone number is 571-272-2419. The examiner can normally be reached on Tue-Fr.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley Jr. can be reached on 571-272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Andrew Hwa Lee  
Primary Examiner  
Art Unit 2877